RIAI Response to:

Public Consultation on the Proposed Material Alterations to the Draft Fingal Development Plan 2023-2029

1.0 INTRODUCTION

1.1 The Royal Institute of the Architects of Ireland (RIAI) welcomes the consultation process on the proposed material alterations to the Draft Fingal Development Plan 2023 – 2029.

This submission includes input from RIAI committees and taskforces:

RIAI Housing Committee, which is comprised of architects working in housing in both the public and private sectors. Between the committee members and the organisations they represent, they act as Architects, Design Team Lead, Employers Representative, Assigned Certifier and Design Certifier for at least 50% of the housing delivery in Ireland. The committee is therefore well positioned to comment on housing issues both in Dublin and nationally.

RIAI Urban Design Committee membership consists of architects with an expertise in urban design, including practitioners from private practice, education, and the public sector. Promoting urban design as part of the architect's core spatial skills and advance the competencies in the subject, advancing the value of architects in the urban design process. promoting the continuing inclusion of the key principles of urban design in national policy, forward planning, and development management, creating public awareness of the benefits that urban design brings to the quality of everyday life, and the publication of exemplary practice and evidence-based research in the field of urban design.

The RIAI Sustainability Task Force is a committee comprised of architects working in the public and private sectors and in education who are experienced, skilled and knowledgeable sustainable design practitioners. The committee's remit is to promote and further the Architects professional obligation to take a leading role in tackling climate change in the built environment and on large-scale master planning projects. The committee works to promote the objectives of the RIAI Policy on Sustainability (2019) and place the UN Sustainable Development goals at the core of architectural practice.

RIAI Universal Design Taskforce is comprised of architects who have experience and expertise in all aspects of accessibility, inclusion and universal design working as practitioners and policy makers in both the public and private sectors. The Taskforce works to promote the RIAI Policy Statement on Accessibility, Inclusion and Universal Design and provide advice to RIAI members.

The RIAI Historic Buildings Committee consists of architects with expertise in the conservation and repair of our built heritage, which includes practitioners and policy makers from private practice and public sector.

2.0 ISSUES OF PRINCIPLE

2.1 A Vision Statement

We recommend that the proposed material alterations to the Draft Fingal Development Plan 2023 – 2029 should incorporate its own vision statement, providing an anchor point for the Development Plan. The updating of Development Plans frequently results in the addition of more technical requirements, which in turn adds greater complexity and detail, which often results in reduced community engagement and participation. The vision statement should position the Development Plan Guidelines as a framework for planning inclusive, safe, healthy and happy places, safeguarding authentic cherished places and providing a platform for innovation and community for future generations.

2.2 An Executive Summary

The executive summary of the proposed material alterations to the Draft Fingal Development Plan 2023 – 2029, should identify the overriding principles of the Development Plan. The RIAI recommend that the following should form the basis for an executive summary:

A) Effective Consultation and Participation Processes
B) Greater focus on the Existing Built Fabric
C) Sustainability and Climate Change
D) The Importance of quality architecture and design-led approach
E) Designing communities for Health and Well-being

2.3 Presentation of the Development Plan

The guideline document (currently in draft format – Development Plan Guidelines for Planning Authorities) under Plan Design and Presentation notes that:

"There has been a tendency in the preparation of some development plans to include a policy or objective for numerous possible development scenarios, leading to extremely lengthy written statement documents. Documents of this scale can be very difficult to use for the public and can lack a strategic focus, often getting lost in a level of detail more suited to local area plans or restating, at length, material from other guidance or policy documents. Planning authorities should be aware of this tendency and strive to keep their development plan strategically focused and concise in nature."

The RIAI suggest that the inclusion of a Vision Statement and Executive Summary in all Development Plans will help the Planning Authority to align interpretation and intent in a clear, unambiguous manner.

2.4 Holistic Approach: Community at the heart of stakeholder engagement

The RIAI recommend that a clear strategy is developed. The RIAI believe that the development plan is effectively a contract between planners and the people. The role of the basic democracy in the making of the plan, through the input of elected representatives and public comment, needs to be emphasized, as there is the risk that an overly rigid set of guidelines may work against local place making and community need.

While the guidelines are, positively, encouraging a move towards evidence-base and realistic, implementable, measured objectives – the concern is that there is little real awareness of the importance of a vision, and the role of quality design in the development of 'sustainable communities.' Difficult and all though it may be, this vision should be coming from the citizens as much as the 'experts' writing the development plan.

The Development Plan as a mechanism for public participation and 'policing' the planning process has been somewhat undermined by the experience of Strategic Housing Developments [SHDs]. Public confidence in the Development Plan process must be regained in order to get re-engagement and participation.

Stakeholders are predominantly still seen as utility providers and those with an "established" interest rather than trying to seek a diversity of views. Trying to place people at the heart of plan making would ultimately deliver stronger communities – further public engagement (whilst briefly mentioned) is required to seek to expand the authorship of our towns and cities.

2.5   <u>**Identifying the role of the Architect in the Development Plan Process**</u>

Section 2.2 of the Draft Development Plan Guidelines for Planning Authorities outlines the core Development Plan Team, and feeding from that, the staff resources which should provide input into the core team. However, the RIAI have concerns where there is no specific mention of the inclusion of an Architect within this team, or as part of a wider input.

Whilst some of the cross competencies as identified who are to feed into the core team may include architects, the RIAI believe the role of the Architect should be identified as part of the core team requirements for the Development Plan preparation process. The Architect is the traditional leader of the design team, and our inclusion in this core team would reflect in the recognition of the importance of quality design, ultimately resulting in a considered collaborative approach, and contributing the quality and effectiveness of the Development Plan as a result.

Architects bring specific skill sets to the plan-making process that complement the role of the Planner. These include:

- In-depth expertise on urbanism, conservation and heritage, sustainability,
- Universal design, housing and communities, all from the large-scale structure of our cities, towns, villages and natural landscapes, through to the granular detail.
- Knowledge of regulations, standards and directives including their implementation and effectiveness
- Management and coordination of complex issues and multi-disciplinary teams, to achieve successful outcomes
- Holistic thinking, 3d visioning,
- Understanding, analysing and evaluation of various issues and appropriate responses
- Communication and participation

The RIAI believe that architects would positively contribute on ways to improve people's quality of life, health, and wellbeing, through working with and enhancing our existing resources, to manage growth and development. All these skills are essential to the preparation of development plans.

A key example by illustration is where the key skillsets of architects translate the visions of the Development Plan objectives, expressing the relevant policies and ambitions to relevant stakeholders in a unique and visual manner. The inclusion of the Architect as an essential member of the core Development Plan team from the outset arms the team with the skillset to develop existing architectural expressions and respond with quality design solutions; ultimately improving quality of life as a result.

2.6   <u>**Resourcing the implementation of the Development Plan**</u>

The RIAI believe that the successful implementation of Development Plans will be dependent on the sufficient resourcing of our Local Authority Departments to ensure they have the correct skillsets and resources in order to facilitate the implementation of quality-driven development plans which are design focused in their approaches. This includes the appropriate skillset resourcing to each county, relevant to their requirements, to include professionals such as Qualified Architects as core members of the Development Plan teams, and an architectural conservation officer available to the development plan team in each county.

SPECIFIC COMMENTS ON THE PROPOSED MATERIAL ALTERATIONS TO THE DRAFT FINGAL DEVELOPMENT PLAN 2023 – 2029

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A. Introduction & Strategic Context

The guideline document (currently in draft format – Development Plan Guidelines for Planning Authorities) notes under Section 2.7 Plan Design and Presentation (pg 31) notes that:

"There has been a tendency in the preparation of some development plans to include a policy or objective for numerous possible development scenarios, leading to extremely lengthy written statement documents. Documents of this scale can be very difficult to use for the public and can lack a strategic focus, often getting lost in a level of detail more suited to local area plans or restating, at length, material from other guidance or policy documents. Planning authorities should be aware of this tendency and strive to keep their development plan strategically focused and concise in nature."

As previously stated, the RIAI suggest that the inclusion of a Vision Statement and Executive Summary in all Development Plans may help the Planning Authority to align interpretation and intent in a clear, unambiguous manner.

B. Core Strategy & Settlement Strategy

The government **Town Centre First** Policy features two RIAI publications under the heading 'Examples of Existing Guidance':

- In the area of developing a plan-led approach, existing resources include the Town & Village Toolkit produced by the Royal Institute of the Architects of Ireland, the Community-led Village Design Statements produced by the Heritage Council and the Framework for Town Centre Renewal produced by the Retail Forum.
- The RIAI's 'Old House, New Home' initiative is also another useful resource when pursuing the conversion of historic structures to residential accommodation.

The RIAI Town and Village Toolkit has been developed by the RIAI and the RIAI Urban Design Committee in response to requests to provide expert advice for people to assess the quality of the towns and villages where they live, work or have responsibility.

The RIAI Urban Design Committee advises that using a 'toolkit' does not provide an easy quick-fix solution that can be simply applied by anyone. Quite the opposite, providing expert advice on urbanism is a specialist skill that many architects develop over many years of practice and experience in this area, including several years additional postgraduate training. Substantial international research and work over the past 50 years has created an extensive evidence-based body of knowledge on how we understand, analyse and monitor the effect of the built environment on people's behaviour, health and well-being. This 'toolkit' provides a starting point. It draws upon ways that the RIAI consider are the most effective in helping to improve the quality of our towns and villages as attractive places to live. The featured case studies, delivered by architect-led teams, show how these tools are being successfully applied in Irish towns and villages.

The toolkit also draws upon the findings from a series of colloquia on Shaping the Future of our Town, organised by the RIAI Urban Design Committee and held in Mallow and Drogheda. These colloquia were led by architects with urban design expertise working with a broad range of local people interested in their town, including local community and business interests, local authority representatives, elected public representatives and members of the public. Also contributing were planners, engineers, landscape architects and other fellow built environment professionals. These colloquia explored ways to overcome existing constraints and to help people identify ways to improve their town. The findings and strategic recommendations were collated and presented to the Local Authority in a report.

With growing interest from other local authorities to hold similar events, the RIAI Urban Design Committee decided to develop a 'toolkit' methodology to support towns in identifying and making the strategic decisions needed to become attractive and thriving places.

C. Housing

The delivery of quality housing that meets the objectives of Housing for All, delivers on the Towns Centres First policy and complies with the obligations of climate change is a significant challenge.

It is possible, but needs a new collaboration between local communities, the public sector and private sector stakeholders.

The RIAI is the registration and support body for Architects in Ireland. Its members have key roles in the planning, design and delivery of the majority of public and private sector housing and apartments throughout Ireland. This provides Architects with a unique insight into systemic problems, which are contributing to the crisis in the provision of housing from initial concepts, through planning to the construction and delivery phases of the process. Based on the wide experience the RIAI recommends that the following actions-initiatives to improve the delivery of residential projects:

RIAI has made recommendations on a range of areas where we believe changes will create a more efficient and effective delivery system. However, this paper focuses on initiatives to the planning system.

Three-Dimensional Development Plans for Urban Areas developed with Structured Involvement by the Local Community.

The RIAI are proposing a model of plan preparation that entails a move away from the traditional 2 D analysis and representation of future development to a Vision Led master-planning model that addresses issues of development quantum, place making and street hierarchies, building heights, green infrastructure and densification in a three dimensional format, both digitally and interactively.

Why:

- To increase engagement and better understanding by communities of the agreed future development in their areas.
- To enable local communities visualise and engage with how new housing and development can be integrated into their community in such a way as to create a win-win for everyone.
- To foster local proponents for new housing in their community.
- To provide opportunities for meaningful discussion on future development.
- To enable third party engagement at the earliest stage of the planning process, ensuring participation and removing some of the costly, adversarial nature of the current system.
- To reduce uncertainty, risk and cost at planning application stage.
- To explore the potential of sustainable densities for urban and suburban areas.
- To provide longer-term visions that looks beyond the Development Plan Cycle.
- To make better use of professional expertise within the Local Authority.

How:

- Development plans to be produced in three-dimensional format for our cities and towns to provide clarity on a local council's vision for future growth and to provide an enhanced tool to communicate with the community.
- These three-dimensional plans to be displayed to local representatives and the local community in an accessible online format.
- The adoption of the three-dimensional development plan by a Council to be equivalent to a grant of Outline Planning Permission.
- The adopted plan to be capable of being appealed to An Bord Pleanála by residents of the relevant council area.
- A planning application prepared in accordance with the three-dimensional development plan will be assessed in relation to height, plot ratio, materials etc. as a technical compliance process, adding more certainty for both applicants and the community. A grant of permission by a Council in respect of such an application will not be open to appeal on any of these matters.
- It will still remain possible for an applicant to submit a planning application for a development not in accordance with the adopted three dimensional development plan, where this option will be processed through the traditional planning process.
- Consideration could be given to progressive Local Authorities to prototype this system.
- The Local Authorities will require sufficient professional expertise to deliver the system and will require expertise in areas such as embodied carbon, rights-to-solar-energy and rights-to-light.
- To effectively deliver on this proposed system, the Local Authorities will need to coordinate resources to ensure adequate infrastructure is just in time, to allow the timely delivery of housing and development.
- Similar planning systems exist in other European countries including Germany, Finland and Portugal where the system provides better clarity to public representatives and local residents on the form of future development.

Planning Compliance:

- This system would support Local Authorities to meet the mandatory time limit of 8 weeks for processing of confirmation of compliance with planning permission.
- One of the most significant developments following the commencement of new research work has been the identification of a category of housing which does not exist in Ireland or the UK - *Low Rise Medium Density Housing*. This does not currently exist as a housing category in the UK or Ireland because of the adherence of most local authorities, with very few exceptions, to the planning principles resulting from the Tudor Walters Report of 1918, which resulted in recommended densities of 12 per acre in towns (30 per hectare) or 8 per acre in the country (20 per hectare) with houses laid out in short terraces spaced at 70 feet (21m). There are some limited exceptions to this in Ireland (cited in the accompanying case studies) in Dublin City Council environs, where the development plan permits relaxation of normal planning standards for infill sites, in the interest of ensuring that vacant, derelict and under-utilised land in the inner and outer city is developed.

Housing Typologies

- Currently, it is extremely difficult to achieve housing solutions above 30 units per hectare in Ireland. *Low Rise Medium Density Housing* is a category of housing, providing typical densities of 35-80 dwellings per hectare and it exists in most European countries including Sweden, Denmark, Finland, Netherlands, Germany, in Australia and New Zealand.
- This form of medium density housing contributes to the creation of residential communities at sustainable densities, and with a greater variety of housing typologies, than that generally available in Ireland.
- In the UK a limited number of progressive local authorities, including Cambridge, Norwich and a small number of London boroughs have permitted housing developments based broadly on this medium density model on council-owned land. A key feature of this model is the high quality of the public realm resulting from the implementation of urban design and street guidelines similar to those outlined in the Departments Design Manual for Urban Streets and Roads. Throughout Europe there are myriad examples of exceptional high quality *Low-Rise Medium Density Housing* developments based on this model.
- It is the professional opinion of RIAI members experienced in housing design in the public and private sectors that this *Low-Rise Medium Density Housing* category is a more appropriate architectural and urban design model to achieve the Department's objective of compact urban growth in areas where medium density levels are required. It achieves a higher quality of sustainable urbanism when compared with the current model of traditional urban sprawl housing, combined with the requisite proportion of apartment blocks to reach the minimum density standards. The results of this current formula, while achieving the required density, do not generally produce the high standards of sustainable residential communities to which architects, urban designers and the general public aspires.
- Currently, low-rise development encourages a standardised traditional form of construction with cost and operational savings on reinforced concrete, cranage and access systems, complex cladding and window systems as well as mitigating against fire-safety strictures of taller apartment buildings. It facilitates faster construction through the incorporation of prefabrication systems such as timber-frame, SIPS and light-gauge steel. This reduction in construction complexity and cost promotes the development of smaller schemes accessible to more small–to-medium contractors and may be funded, constructed and sold incrementally.

- Low-rise medium-density residential schemes based on masterplans guaranteeing high-quality streets, squares and parks and sold incrementally (as heretofore) are more familiar and easily integrated into existing districts which will help to reduce public opposition and legal delays. Reduced cost and risk will increase viability and grow confidence in national funding vehicles. The current market centres on high-rise, high-cost build-to-rent schemes funded internationally and the release of accommodation depends on the completion of full schemes. Low-rise medium-density as a housing model will facilitate growth in small-to-medium developers and contractors creating a pipeline of projects which will provide a more diverse offer with incremental and hence earlier delivery, reduced risk and cost.

- The RIAI are of the view that this *Low-Rise Medium Density Housing* model should be introduced as a priority as a distinct category as part of a new Ministerial Directive for National Housing Planning Standards. We also recommend that it promotes a mix of housing typologies and that it is only possible to apply for planning permission for a development based on this new category of Low-Rise *Medium Density Housing* if the scheme incorporates a high-quality public realm based on the Department's Design Manual for Urban Roads and Streets. The use of appropriate approved materials will enhance the quality of these areas and the impact of car parking on the streetscape significantly reduced through proper implementation of DMURs standards.

- Sustainable living requires appraisal of neighbourhood wide densities – this to ensure that capacity for good local services and transport connections is maintained for everyone. Low rise medium density is compatible in scale with existing neighbourhoods and so facilitates incremental infill. Improved quality in the local public realm and sense of place promotes a virtuous cycle which empowers individuals and smaller housing providers to follow, and so steadily ratchets up the gross density across the full range of opportunity sites. This supports national policy by enabling consolidation within existing urban areas, much of it in suburbia, at a compatible scale accepted by local communities. It can provide much of our new housing, particularly age friendly homes, where it is needed.

- This new housing category will enable architects, urban designers and their clients in the public and private sector to produce a new generation of high quality sustainable residential communities for the twenty-first century. It will also significantly raise standards and improve the choice of housing and quality of the public realm in residential neighbourhoods. We strongly urge the introduction of new specific regulations permitting this housing category as a priority to improve the quality of new residential communities and to assist in the viability of housing construction.

D.   Sustainable Mobility & Transport

Transport & Sustainable Mobility

- The Development Plan must recognise the need for equality of access for everybody to all aspects of the built and external environment as an essential prerequisite for equal opportunities and the development of an inclusive society.
- Reference should be made to compliance with the UNCRPD and international standards –
  - *EN 17210 : 2021 Accessibility and usability of the built environment – Functional Requirements*
  - *EN 17621: 2021 Accessibility and usability of the built environment – Technical performance criteria and specifications*
  - *IS0 21542: 2021 Building Construction – Accessibility and usability of the built environment*

E.   Accessibility, Inclusion and Universal Design – Public Realm and Sustainable Neighbourhoods

Context

Despite progress made in recent years people with disabilities still face additional challenges and barriers in both the physical realm, participation in the community and independent living.

The UN Convention on the Rights of Persons with Disabilities [UNCRPD] and the EU Strategy for the Rights of Persons with Disabilities 2021-2030 need to be embedded in all aspects of the new Development Plan. The General Obligations of UNCRPD include Article 9 (Accessibility), Article 19 (Living independently and being included in the community), Article 24 (Education), Article 25 (Health), Article 27 (Work and Employment), Article 28 (Adequate standard of living) and Article 30 (Participation

in cultural life). The EU Strategy for the Rights of Persons with Disabilities 2021-2030 aims to progress on all areas of the United Nations Convention on the Rights of Persons with Disabilities, both at EU and Member State level. The goal is to ensure that persons with disabilities in Europe, regardless of their sex, racial or ethnic origin, religion or belief, age or sexual orientation:

- enjoy their human rights,
- have equal opportunities,
- have equal access to participate in society and economy,
- are able to decide where, how and with whom they live,
- can move freely in the EU regardless of their support needs,
- no longer experience discrimination.

In addition, Ireland is a signatory to the United Nations Sustainable Development Goals (SDGs) all Irish National and Local Plans are obliged to respond and incorporate the SDGs [Particularly SDGs 1.4, 3, 8, 10 and 11] into local policies. Sustainable and disability inclusive development can only be achieved with the full participation and empowerment of disabled people.

The National Disability Inclusion Strategy (NDIS) 2017 -2021 calls for Local Authorities to develop actions at a community level to increase the participation of disabled people in their communities and calls for all public bodies to implement universal design principles.

The local authority, as a public body, has a statutory obligation to ensure access to mainstream public services and to support access to public buildings, services and information under the Disability Act (DA)2005.

The incorporation of international standards and principles as exemplified by the UNCRPD, SDGs, EU Strategy for the Rights of Persons with Disabilities as well as national equality legislation into Development Plans future-proofs planning strategy and will deliver a better quality of life for all.

Public Realm

International Standards

Three new international standards concerning accessibility and usability of the built environment should be referenced for public realm.

- *EN 17210 : 2021 Accessibility and usability of the built environment – Functional Requirements*
- *EN 17621: 2021 Accessibility and usability of the built environment – Technical performance criteria and specifications*
- *IS0 21542: 2021 Building Construction – Accessibility and usability of the built environment*

In addition, the UDTF recommend that BS 8300:2018-1 External Environment – Code of Practice is referenced.

The UDTF suggest that Design Statement is not limited to large scale residential and commercial developments but is a requirement for all planning applications that impact on the public realm.

It proposes that the Design Statement includes a **Universal Design Statement** using a proscribed template as set out in Appendix 1 for all planning applications. In addition, it is essential that suitably qualified expertise is available to the Planning Department to effectively scrutinise **the Universal Design Statement.**

Quality Housing And Sustainable Neighbourhoods

Social Inclusion

A strategic principle of a Development Plan is to develop a network of sustainable neighbourhoods which have a range of facilities, a choice of tenure and universally designed adaptable house types, promote social inclusion and integration of all minority communities. Social inclusion is about ensuring that everyone has equal opportunity to participate in and contribute to, community life regardless of their age, ability, nationality, ethnic group, religion or any other of the many characteristics that contribute to diversity in our communities and society.

There are a number of groups with specific design and planning needs that must be considered in the planning and design of the built environment and in the location of social and community facilities.

These groups include older people, children and young people, people with disabilities, ethnic minorities and the Traveller community.

The quality of life of older people can be improved through planning and the incorporation of universal design principles in the design of the built environment, particularly, housing, community and care facilities and accessible transportation including public transport and footpaths.

The planning related issues relevant to people with a sensory disability, mental health disability, physical disability and intellectual disability include the need to facilitate independent living, access, mobility and to ensure access to employment opportunities.

The UDTF supports these aspirations, but they must be adequately supported by specific standards and actions.

Article 19 of the United Nations Convention on the Rights of Persons with Disabilities UNCRPD – Living independently and being included in the community states:

Parties to the present Convention recognize the equal right of all persons with disabilities to live in the community, with choices equal to others, and shall take effective and appropriate measures to facilitate full enjoyment by persons with disabilities of this right and their full inclusion and participation in the community, including by ensuring that:

a) Persons with disabilities have the opportunity to choose their place of residence and where and with whom they live on an equal basis with others and are not obliged to live in a particular living arrangement;
b) Persons with disabilities have access to a range of in-home, residential and other community support services, including personal assistance necessary to support living and inclusion in the community, and to prevent isolation or segregation from the community;
c) Community services and facilities for the general population are available on an equal basis to persons with disabilities and are responsive to their needs.

https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities/article-19-living-independently-and-being-included-in-the-community.html

Reference should also be made to the recently published **National Housing Strategy for Disabled People 2022 – 2027** and its implementation plan. https://www.gov.ie/en/publication/60d76-national-housing-strategy-for-disabled-people-2022-2027/

<u>**Housing for All**</u>

The UDTF strongly recommend that all new housing is designed in a way that is adaptable and flexible to the changing needs of the homeowner as set out in Universal Design Guidelines for Homes in Ireland 2015 and that 50% of apartments in any development that are required to be in excess of minimum sizes should be designed to be suitable for older people/mobility impaired people and people with disabilities accordance with the standards set out in the Universal Design Guidelines for Homes in Ireland 2015 with 25% designed to UD Plus and 25% to UD Plus Plus to compensate for the historic lack of investment in lifetime adaptable homes.

Development Plans should NOT reference Part M of the Building Regulations as a design standard for homes. The Current Part M simply "allows" disabled people visit a home that has been constructed since 2012, but they cannot stay overnight or live there. Reference should be made to lifetime adaptable homes, as set out in Building For Everyone: A Universal Design Approach 2012, the Universal Design Guidelines for Homes in Ireland issued by the National Disability Authority, Housing Options for our Ageing Population, issued by the Department of Housing, Local Government and Heritage and, the Department of Health and Designing Housing to Meet the Needs of All issued by the Housing Agency.

Reference should be made to compliance with Ireland's obligations under the UN CRPD and the National Housing Strategy for Disabled People 2022 – 2027 and its implementation plan.

<u>**Housing for Older People**</u>

The RIAI recommends that all new housing is designed in a way that is adaptable and flexible to the changing needs of the homeowner as set out in Universal Design Guidelines for Homes in Ireland 2015 and that 50% of apartments in any development that are required to be in excess of minimum sizes should be designed to be suitable for older people/mobility impaired people and people with disabilities accordance with the standards set out in the Universal Design Guidelines for Homes in Ireland 2015

with 25% designed to UD Plus and 25% to UD Plus Plus to compensate for the historic lack of investment in lifetime adaptable homes.

This target is in line with Housing *Options for an Ageing Population Policy Statement 2021, Government of Ireland, and the Guidance in the Design Manual for Quality Housing 2022, DHLGH.*

Housing for People with Disabilities

The UDTF strongly recommend that 50% of apartments in any development that are required to be in excess of minimum sizes should be designed to be suitable for older people/mobility impaired people and people with disabilities accordance with the standards set out in the Universal Design Guidelines for Homes in Ireland 2015 with 25% designed to UD Plus and 25% to UD Plus Plus to compensate for the historic lack of investment in lifetime adaptable homes.

This target *is in line with Housing Options for an Ageing Population Policy Statement 2021, Government of Ireland, and the Guidance in the Design Manual for Quality Housing 2022, DHLGH.*

Reference should be made to compliance with Ireland's obligations under the UN CRPD and the National Housing Strategy for Disabled People 2022 – 2027 and its implementation plan.

Intergenerational Models of Housing

The RIAI UDTF has liaised with the Association of Occupational Therapists of Ireland (AOTI) to produce a Position Paper titled *Changing the mindset from 'Granny Flat' to Flexible Home Adaptations .It sets out the need for* clear criteria for Flexible Home Adaptations to be established. See **Appendix 2** for summary outline for consideration.

Development Standards

Inclusivity and Accessibility

The Development Plan must acknowledge that an inclusive environment is one which values diversity and difference and encompasses the needs of a wide range of user groups, as well as being sufficiently flexible and versatile to be able to adapt to diverse and changing needs and life circumstances. Development proposals, including all new large-scale developments, whether they relate to new buildings, public realm works, changes of use or alterations to existing buildings, must be designed to meet the mobility needs and convenience of all, and incorporate inclusive design principles particularly for vulnerable groups such as the elderly and persons with disabilities.

This needs to be clearly demonstrated in a Universal Design Statement as proposed in **Appendix 1** and assessed by someone with appropriate expertise.

Within new buildings and spaces, this will include consideration of issues such as provision of level circulation, lifts, doors widths, surface finishes, signs and information. The needs of occupants of different ages and stages of life should also be considered, ensuring form, construction and internal arrangement of the building will enable future adaptability.

Access to the environment should also consider ways in which services and information can be provided to meet the needs of all users. All public buildings should ensure appropriate disability access, including disability car parking where feasible. The Council will support the retrofitting of public buildings where appropriate to ensure optimal accessibility.

The UDTF recommends that these aspirations be supported by clear procedures designed to demonstrate that inclusive principles and universal design standards have been used from the inception of the design process and that they will be followed through to implementation and on-going management and maintenance, as proposed in **Appendix 1**.

UDTF strongly advise that the Development Plan acknowledges that compliance with Part M 2010 of the Building Regulations does NOT ensure that buildings are accessible and usable by everyone, the Technical Guidance Document only provides guidance for generic non-residential buildings and allows residential dwelling to be visitable by a disabled person only.

Architectural Design Statements

The UDTF recommend that this Design Statement is not limited to large scale residential and commercial developments. It proposes that the Design Statement includes a Universal Design Statement using a proscribed template as set out in Appendix 1 for all planning applications.

In addition suitably qualified expertise is available to the Planning Department to effectively scrutinise the Universal Design Statement.

Unit Size / Layout

The UDTF recommend that 50% of apartments in any development that are required to be in excess of minimum sizes should be designed to be suitable for older people/mobility impaired people and people with disabilities accordance with the standards set out in the Universal Design Guidelines for Homes in Ireland 2015 with 25% designed to UD Plus and 25% to UD Plus Plus.

This target is in line with Housing Options for an Ageing Population Policy Statement 2021, Government of Ireland, and the Guidance in the Design Manual for Quality Housing 2022, DHLGH.

APPENDIX I

Proposal: Universal Design Statement

The RIAI Universal Design Task Force [UDTF] recommend the introduction of an **Universal Design Statement** as a **requirement** for a planning application to a Local Authority and An Bord Pleanála.

Background:

The UDTF have reviewed some recent Accessibility Statements, submitted with Strategic Housing Developments applications and Design Reports, submitted with some planning applications. The majority of these Statements and Design Reports demonstrate both a lack of understanding about designing for access, inclusion and universal design and a lack of scrutiny by the planning authorities.

Some of the Design Reports simply state that the proposed development will be accessible and that the development will comply with Part M. of the Building Regulations. Housing developments tend to refer to tenure, affordability and Part V provision as mechanisms for inclusion and accessibility. Generally planning documentation provided little or no mention about how all people would live, use and enjoy the proposed development.

The current guidance for demonstrating accessibility at planning application stage in Ireland as set out in the *Urban Design Manual – best practice guide* published by the Department of the Environment, Heritage and Local Government in 2009[1].

The UDTF have reviewed the Urban Design Manual in respect of accessibility, inclusion and universal design and a summary of its findings:-

- Overall the guidance is very general;
- Design standards for buildings and dwellings is compliance with Part M. [It should be noted that the Urban Design Manual was published before Part M [2010], which lags behind current international standards]
- No design standards for public spaces are included, it merely mentions that they should be accessible to everyone.
- No clear requirements as to how compliance will be demonstrated.

Benefits of a Comprehensive Universal Design Statement for Development Proposals at Planning Stage

- It encourages the applicant to consider accessibility, inclusion and universal design for a proposed development at the pre-planning stage of the design process;
- It explains how issues relating to access have been dealt with;
- It shows how the proposed development will address the principles of universal design, while responding to the existing topography, urban context and other site constraints, such as existing buildings.
- It encourages the applicant to think about how accessibility will be addressed through the various stages of briefing, design, construction, post-completion and post-occupancy.
- It gives the applicant the opportunity to explain and justify their accessibility proposal to the local authority and other relevant stakeholders.
- It will ensure an universal design approach for the proposed development from the outset of a project which will benefit all .
- It could mitigate potential claims under national legislation including the Equal Status Act 2000-2011 and the Disability Act 2005.
- It can provide the information for an Access Guide that can assist building users, management and owners in the day to day running and operation of buildings and surroundings.
- It mainstreams accessibility, inclusion and universal design into the design process.
- It can help meet statutory planning and building control requirements.
- It can be shared with building users and stakeholders to demonstrate why certain decisions have been made by explaining why minimum standards have been exceeded and/or why best practice has not met and/or where innovative solutions have been designed.

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[1] https://www.housing.gov.ie/sites/default/files/migrated-files/en/Publications/DevelopmentandHousing/Planning/FileDownLoad,19216,en.pdf

- It provides a working record and a useful reference for designers and developers for future project development by identifying what mistakes not to repeat, and what best practice to apply again.

Definition for a Universal Design Statement

A Universal Design Statement is a document that explains the ambition of a proposed development in terms of providing equal access for all potential users.

It should set out policy objectives and demonstrate how access for all will be achieved.

It should include the results of consultation with community and access groups.

An Universal Design Statement is a useful document to record key decisions during the design of the development and inform the ongoing management and maintenance of the development.

Template for an Universal Design Statement for non-Residential and Mixed Use Developments

The purpose of a Universal Design Statement is to encourage the applicant to consider accessibility, inclusion and universal design for a proposed development at the pre-planning stage of the design process. A Universal Design Statement can help meet statutory planning and building control requirements.

It can be shared with building users and stakeholders to demonstrate why certain decisions have been made by explaining why minimum standards have been exceeded and/or why best practice has not met and/or where innovative solutions have been designed. It will provide information for an Access Guide that can assist building users, management and owners in the day to day running and operation of buildings and surroundings and a working record for designers and developers for future developments.

A Universal Design Statement should form part of all planning applications for public buildings and for all other developments > 500m2

This Template is to enable designers prepare an Universal Design Statement for non-residential and mixed use developments, that together with relevant drawings demonstrate how the design responds to the needs of all potential users.

Note	Response
Provide a brief statement stating the overall aims for the project in terms of accessibility and inclusion (Refer to guidance note 1 below).	
Note any specific project requirements related to access and inclusion.	
Note how access and inclusion has informed the site selection and overall layout. (Refer to guidance notes 2 & 3 below.)	
Confirm compliance with Part M	
Has work commenced on the preparation of a DAC Cert y/n ?	
Note any relevant consultation that has been or that will take place and how this has informed or will inform the design. Provide supporting documentation if relevant. . (Refer to guidance note 4 below).	

Note any design features that support access and inclusion. Note any relevant standards and guidance that has been applied. (Refer to guidance note 2 below).	
Note any design features to be included in the external spaces that support access and inclusion. Note any relevant standards and guidance that has been applied.	
Note how the policies and approaches to making your development inclusive will be maintained in the longer term, for example in maintenance programmes and management plans.	
Provide diagrams on how people can move to and around the site and how users of the buildings can access them comfortably and safely.	
Indicate the ground floor layouts of buildings on the site plan and identify the main entrances and also the emergency exits. Please note that the main entrances ought to be accessible to all.	
Demonstrate how the main entrances to buildings are identifiable to visitors, as well as facilities such as toilets or café or conference rooms.	
Illustrate, perhaps using a site section or site plan, how public, semi-public and private space will relate to each other, and how they have been designed to make users feel safe using these spaces.	
Fire safety for all?	
Is assistive technology included?	
Provide any additional information that you think is relevant to this application.	

APPENDIX II: GUIDANCE NOTES

General

At the project commencement stage:

- Identify, in consultation with the client/funding partner, and the design team, the aims for accessibility, how it is intended to put them into practice and targets that will help monitor success.
- Highlight any policies that demonstrate commitment to ensuring that everyone, including older people, disabled people of all ages, will be able get to and around your development, enjoy its facilities and fully participate in the experiences on offer.
- Identify what standards and guidance are used - this can include legislative and expert guidance.

GUIDANCE NOTE 1

The statement of intent may include the following:

- how it is intended that a sustainable demographic range of people will be accommodated;
- how it is intended that homes will be able to be adapted to meet changing needs over a lifetime;
- the number and % of homes in the proposed development that are proposed to be designed and constructed to be in excess of minimum sizes that are suitable for older people/mobility impaired people ad demonstrate on a plan the location and level/floor;
- the number of residential units with level access throughout;
- the number of residential units achieving the UD, UD+ and UD++ indicated in the Housing Quality Assessment (HQA) for the development

Dwelling Type	No. of Bedrooms	UD		UD+		UD++	
		No.	%	No.	%	No.	%
Type A							
Type B							
Type C							
Type D							
Sub-Total							

- Any other standards, guidance or considerations that will inform the development of an accessible inclusive environment.

GUIDANCE NOTE 2

The following may inform the site selection and layout (refer also to guidance note 3).

Location and access to public services and amenities such as:

- doctor surgery, convenience store, pharmacy, hairdresser, place of worship etc that are within 400m walk from the proposed development;
- schools, colleges childcare and other educational facilities that are within 400m walk or 800mm cycle from the proposed development;
- community services and resources that are within 400m walk from the proposed development;

Access to public transport:

- all public transport links, bus stops, taxi ranks, pick-up and set-down locations etc;
- identify all pedestrian and cycle routes and connections to schools, colleges childcare and other educational facilities;

Public open space – green and blue infrastructure

- public parks and gardens within 400m walk from the proposed development;
- sports grounds within 800m from the proposed development;

Access to cultural heritage

- heritage sites, buildings and artefacts within 400m walk and 800m cycle from the proposed development;
- cultural facilities and amenities such as cinema, theatre, gallery, music venue within 400m walk from the proposed development;

Safe, accessible public realm

- all resting places [seats or benches], public toilets and community toilets , available in cafes, restaurants and public houses;

Key design elements of the Public Realm, Neighbourhoods, Social Connections and how people will get to and around the development, such as:

- Approaches and entrances that provide for shared use;
- Accessible parking and drop-off near entrances and key destination points;
- Levels and how gradients will be accommodated;
- Route widths, surfaces, distances;
- Horizontal and vertical circulation enabling shared journeys, not separating people;
- Emergency egress accessible to all user.

How people will use the development, such as:

- Access to services;
- Lighting (consider people with partial sight);
- Acoustic design (consider people with hearing loss)
- Access to toilets, cafes and other services;
- Heights of counters, controls (eg sockets, window latches);
- Seating and shelter;
- Accessible signage, information and communication

Site constraints

Where environmental factors constrain best practice, consider the nature of the constraints, why the relevant design standards can't be achieved and identify proposed alternative solutions.

GUIDANCE NOTE 3

Relevant guidance and standards may include the following:

- Universal Design Guidelines for Homes in Ireland
- Universal Design guidelines, dementia Friendly Dwellings for People with Dementia, their families and Carers
- Shared Space, Shared Surfaces and Home Zones from a Universal Design Approach for the Urban Environment in Ireland.
- Irish Wheelchair Association Best Practice Guidelines 4

- Designing Housing to Meet the Needs of All
- Equal Status Act 2000-2011
- Disability Act 2005.
- Part M 2010 Building Regulations
- BS 8300 2018
- Housing Options for our Ageing Population Policy Statement
- CEUD Building for Everyone
- United Nations Convention on the Rights of Persons with Disabilities [UNCRPD]
- UN Sustainable Development Goals
- Relevant CEN, CENELEC, ISO, ETSI, and IEC Standards.

GUIDANCE NOTE 4

Consultation should take place with relevant all potential users of the proposed development including the existing community groups, children disability groups such as the Wheelchair Association of Ireland, NCBI, Inclusion Ireland, Age Friendly Ireland etc.

PROPOSED TEMPLATE FOR AN UNIVERSAL DESIGN STATEMENT FOR HOUSING DEVELOPMENTS

The purpose of this template is to enable designers prepare and document an Accessible and Universal Design Statement for a housing development.

Note	Response
Provide a brief statement stating the overall aims for the project in terms of accessibility and inclusion (Refer to guidance note 1 below).	
Note any specific project requirements related to access and inclusion.	
Note how access and inclusion has informed the site selection and overall layout. Refer to guidance notes 2 & 3 below.	
Confirm compliance with Part M	
Has work commenced on the preparation of a DAC Cert y/n ?	
Note the numbers of dwellings designed to meet UD, UD and UD ++ standards, and /or any other guidance and standards that are being appplied. (Refer to guidance note 2 below).	
Note any relevant consultation that has been or that will take place and how this has informed or will inform the design. Provide supporting documentation if relevant. . (Refer to guidance note 4 below).	
Note any design features to be included in the common areas that support access and inclusion. Note any relevant standards and guidance that has been applied. (Refer to guidance note 2 below).	
Note any design features to be included in the external spaces that support access and inclusion. Note any relevant standards and guidance that has been applied.	
Note how the policies and approaches to making your development inclusive will be maintained in the longer term, for example in maintenance programmes and management plans.	
Provide diagrams on how people can move to and around the site and how users of the buildings can access them comfortably and safely.	
Indicate the ground floor layouts of buildings on the site plan and identify the main entrances and also the emergency exits. Please note that the main entrances ought to be accessible to all.	

Demonstrate how the main entrances to buildings are identifiable to visitors, as well as facilities such as toilets or café or conference rooms.	
Illustrate, perhaps using a site section or site plan, how public, semi-public and private space will relate to each other, and how they have been designed to make users feel safe using these spaces.	
Fire safety for all?	
Is assistive technology included?	
Provide any additional information that you think is relevant to this application.	

DEFINITIONS

Accessibility   **Accessibility** can be defined as the "ability to **access**" the built environment. The concept often focuses on people with **disabilities** or special needs (such as the Convention on the Rights of Persons with **Disabilities**) and their right of **access**, enabling the use of assistive technology.

Inclusion   **I**nclusion can be defined as a universal human right. It is about giving **equal access and opportunities** and getting rid of discrimination and intolerance (removal of barriers) to all people irrespective of race, gender, disability, medical or other need. It affects all aspects of public life.

Universal Design   **Universal Design** is the design and composition of an environment so that it can be accessed, understood and used to the greatest extent possible by all people regardless of their age, size, ability or disability. An environment (or any building, product, or service in that environment) should be designed to meet the needs of all people who wish to use it.

Inclusive Design   Inclusive design is about making places that everyone can use. The way places are designed affects our ability to move, see, hear and communicate effectively.

Inclusive design aims to remove the barriers that create undue effort and separation. It enables everyone to participate equally, confidently and independently in everyday activities

APPENDIX III

Flexible Home Adaptations - Summary

There are many reasons for an extension or home adaptation, for instance

- it may be necessary to support a family member with a physical, cognitive or mental health issue to live independently;
- to support older people to remain living in their own homes by facilitating a family member to build or adapt a building on the same plot;
- to accommodate an elderly relative coming to live with a family member; to enable a carer to provide appropriate levels of support;
- to allow for flexible home working and temporary carer accommodation;
- Support for more intensive use of existing buildings and densification of the suburbs ;
- to provide a separate living space that could be rented to a third party and provide a supplementary income which may be used towards the cost of home care.
- Provision of multi-generational or multi-occupancy accommodation would also combat loneliness;
- Ensure dignity and autonomy for BOTH the person requiring assistance and their carers;

The flexible home, including extension or adaptation may be used for more than one of these uses during the lifetime of the home. The added benefits include the densification of existing towns and neighbourhoods and efficient use of existing serviced land and infrastructure.

The policy for flexible home adaptations should allow for transition of the flexible home to other uses after the care need issues have resolved.

Proposed criteria for Flexible Home Adaptations

- May be 1 storey or multiple storeys
- May be attached or detached
- With or without a connecting door to the main residence
- With or without an external door or front door, a front door can be extremely important in terms of the independence of an individual and their psychological health.
- Designed for flexibility in terms of the future layout , i.e. ensure the bathroom can be easily enlarged in the future for added accessibility
- Level access entrance and exit
- Level access to the private or shared open space or garden
- The provision of distinct private external space for older people should be included;
- Where there is a specific physical, cognitive or mental health issue, the accommodation ought to be designed to meet the specific needs of the individual and their likely future needs
- There should not be a time limit on the use of the accommodation for any of the above uses, reflecting the flexibility of family life
- Follow the Centre for Excellence in Universal Design's (CEUD) Universal Design Guidelines for Homes.
- Consider lighting, heating and materials for the current and future needs of the occupants
- The accommodation should not be sold or otherwise transferred, other than as part of the overall property. When not being used by a family member it may be let, subject to proper registration and standards for rented accommodation being adhered to and not on a short-let basis (to promote long-term renters and to avoid further pressure on the rental market).
- Consider if additional fire resistance construction is appropriate, even if not required by Building Regulations.
- Consider what arrangements are appropriate for metering, heating systems and alarm systems.

F.   Biodiversity & Green Infrastructure

Introduction

This document outlines options for the incorporation of Green Infrastructure (GI) into Local Authority Development Plans. We start with an outline of some of the key environmental concerns in relation to biodiversity loss and climate change challenges that need to be addressed, and highlight those where GI may help mitigate the pressures on the environment and biodiversity.

Green Infrastructure And Bio-Diversity

The Development Plan must ensure universal access for all to the green infrastructure network. **Priority** of access should be given to pedestrians over all other users. Access to open space, facilities and to public parks should be provided equally to all citizens and inequalities of access shall be identified and addressed.

Reference should be made to compliance with the UNCRPD and international standards –

- *EN 17210 : 2021 Accessibility and usability of the built environment – Functional Requirements*
- *EN 17621: 2021 Accessibility and usability of the built environment – Technical performance criteria and specifications*
- *IS0 21542: 2021 Building Construction – Accessibility and usability of the built environment*

Key environmental concerns

Climate Change

Climate change is 'widespread, rapid and intensifying' (IPCC 2021) and against the background of rising global greenhouse gas emissions (GHG) the 'Emissions Gap Report 2021' (UNEP 2021) states that "without immediate and deep emissions reductions across all sectors, limiting global warming to 1.5°C (2.7°F) is beyond reach." Furthermore, biodiversity and ecosystem services (see Section 2.2.1) have limited capacity to adapt to climate change (IPCC 2022a) and if we are to limit global warming to 1.5°C, GHG emissions must peak in 2025 and be reduced by 43% by 2030 (IPCC 2022b). Ireland's residential sector emits 12.3% of the country's greenhouse gas emissions2. However, this figure rises to 35% when emissions from the entire built sector, including operational and embodied emissions, are considered (O'Hegarty and Kinnane 2022).   Ireland has less than 8 years to meet the legally binding target of a 51% reduction of GHG emissions by 2030 as set out in the Climate Action Plan 2021 (Government of Ireland 2021).

Loss and Threats to Biodiversity and Associated Ecosystem Services

Insect and bird populations in Ireland are declining with as many as one third of our 102 wild bee species threatened with extinction (Fitzpatrick et al. 2007) and bird species that were common just a short time ago are now being red listed. There are 54 Irish bird species on the Red List (Table 1) which is the highest status of concern for their species (Gilbert et al. 2021). This represents 26% of the 211 species of Irish birds that were assessed. The kestrel for instance, until recently our most common falcon often seen hovering over fields and motorways, and the swift, a previously common summer visitor to urban areas, are now nearing extinction in Ireland.

Table 1: Birds of conservation concern in Ireland 2020-2026   Red-list species (high conservation concern).

Breeding	Passage	Wintering	Breeding and Wintering
Quail	Turtle Dove	Bewick's Swan	Eider
Grey Partridge	Balearic Shearwater	Long-tailed Duck	Common Scoter

Red Grouse	Curlew Sandpiper	Velvet Scoter	Pochard
Black-necked Grebe		Goldeneye	Shoveler
		Scaup	Oystercatcher
Stock Dove		Slavonian Grebe	Golden Plover
Nightjar		Grey Plover	Lapwing
Swift		Bar-tailed Godwit	Curlew
Corncrake		Black-tailed Godwit	Dunlin
Leach's Storm-petrel		Knot	Snipe
Woodcock		Purple Sandpiper	Redshank
Red-necked Phalarope		Snowy Owl	
Kittiwake		Redwing	
Puffin			
Razorbill			
Barn Owl			
Golden Eagle			
White-tailed Eagle			
Red Kite			
Kestrel			
Wood Warbler Ring Ouzel Common Redstart			
Whinchat			
Meadow Pipit			
Grey Wagtail			
Twite			
Yellowhammer			

The situation is even worse for aquatic life in freshwater bodies due to pollution and habitat degradation (e.g. river drainage). A 2019 EPA report noted that 47% of river waterbodies and 50% of lakes were in unsatisfactory condition or polluted which represents a decline in water quality since the previous 2010-2015 assessment (O'Boyle et al. 2019). The authors stated that "We are continuing to see a loss of the pristine or Q5 ('best of the best') river waterbodies." Table 1 presents the range of Q-values and their interpretation. The 2019 report stated that there are now just 22 pristine river sites left in the country which is a severe reduction from over 500 pristine sites in the late 1980s. A more recent EPA indicators' report noted a small increase in Q5 sites but still only a fraction (1.4%) of those previously monitored (Trodd and O'Boyle 2021). This is likely contributing to the loss of aquatic biodiversity. For example, according to Kelly-Quinn et al. (2020) 28% of the invertebrate groups assessed using Red List methods are threatened and the situation is likely to be worse because some of these assessments

are over 10 years old. Pristine sites are important reservoirs of aquatic biodiversity, and according to the EPA, their loss is of very significant concern.

Table 2: EPA River Quality Biological Ratings

Q Value	WFD Status	Pollution	Condition
Q5, Q4-5	High	Unpolluted	Satisfactory
Q4	Good	Unpolluted	Satisfactory
Q3-4	Moderate	Slightly polluted	Unsatisfactory
Q3, Q2-3	Poor	Moderately polluted	Unsatisfactory
Q2, Q1-2, Q1	Bad	Seriously polluted	Unsatisfactory

Ecosystem Services

Ecosystem services are generally defined as 'the benefits people obtain from ecosystems' (MEA 2005) or 'the contributions that ecosystems make to human well-being' as outlined in the Common International Classification of Ecosystem Services (CICES) report (Haines-Young and Potschin 2013). These can be divided into Provisioning Services, the material outputs from ecosystem such as food and water, Regulating Services such as water purification, climate and flood regulation and carbon sequestration, and Cultural Services which include tangible (angling, kayaking, swimming) and less tangible benefits such as sense of place, aesthetic and spiritual values. It is important to note that the supply of these essential benefits is dependent on biodiversity and their ecosystem processes. Consequently, these benefits are reduced in quality (e.g. poor quality drinking water) or destroyed by biodiversity loss due to habitat degradation and pollution, all of which can be exacerbated by climate change. An example of these linkages in freshwaters is illustrated in Figure 1.
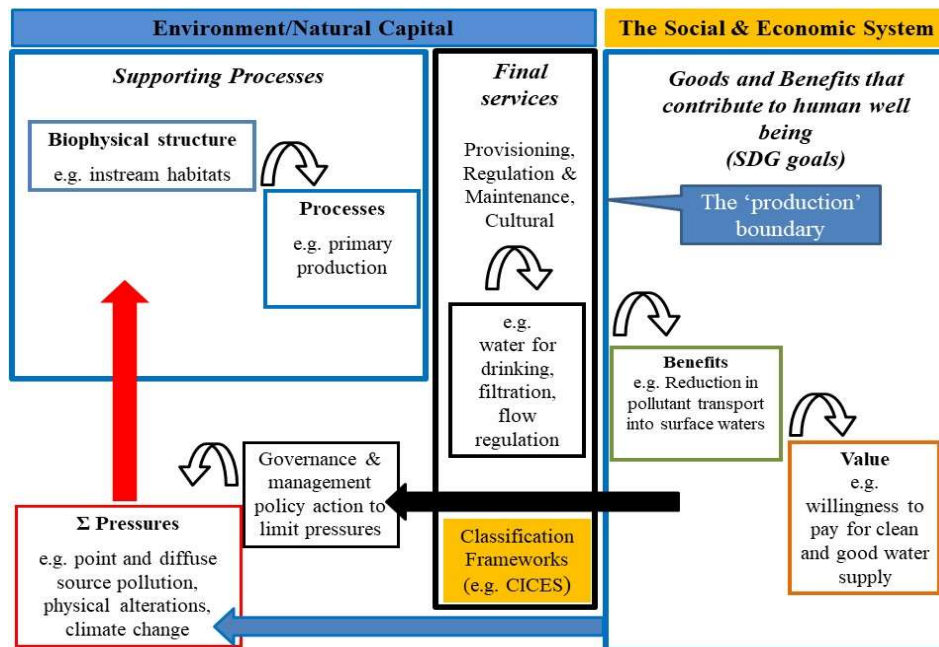
Figure 1: An illustration of the link between ecological processes and the good and benefits that humans derive from ecosystems. From: Kelly-Quinn et al. (2021 - modified after Potschin and Haines-Young (2011).

Policy Context

A wide range of legislation and overarching EU policies (Figure 2) designed to improve environmental quality and thereby human well-being are of relevance. The European Green Deal's3 focus is on

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[3] https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en

climate change and sustainability which aims to achieve a 50% reduction in greenhouse gases by 2030, protect biodiversity and reduce air, soil and water pollution, and restore the natural environment while the Habitats[4] and Birds[5] Directives' focus is on the conservation of a wide range of rare, threatened or endemic animal and plant species. The Water Framework Directive (WDF)[6] requires EU Member States to improve and protect the quality of surface and ground waters. Supporting legislation including directives relating to nitrates, groundwater and floods. The Ramsar Convention on Wetlands seeks to addresses the conservation of wetlands through national action and cooperation at a global level. The Strategic Plan for Biodiversity 2011–2020[7] is to enhance the benefits to people from biodiversity and ecosystem services. The more recent EU Biodiversity Strategy 2030[8] addresses the main drivers of biodiversity loss and sets goals for maintaining and restoring ecosystems and their services. At a global level environmental protection is central to the achievement of the 17 Sustainable Developments Goals (SDG) and their associated targets. Natura 2000 [9]is a network of core breeding and nesting sites for rare and threatened species that needs to be considered at the planning stage. Of particular relevance is the European Commission's Communication on GI which emphasises "the important role of natural capital and the value of the ecosystem services concept as providing an integrating and balanced perspective in policy making, planning and management of ecosystems".

[4] https://ec.europa.eu/environment/nature/legislation/habitatsdirective/index_en.htm
[5] https://ec.europa.eu/environment/nature/info/pubs/docs/brochures/nat2000/en.pdf
[6] https://ec.europa.eu/environment/water/water-framework/index_en.html
[7] https://www.cbd.int/sp/
[8] https://ec.europa.eu/environment/strategy/biodiversity-strategy-2030_en
[9] https://ec.europa.eu/environment/nature/natura2000/index_en.htm

A.0 ROLE FOR GREEN INFRASTRUCTURE
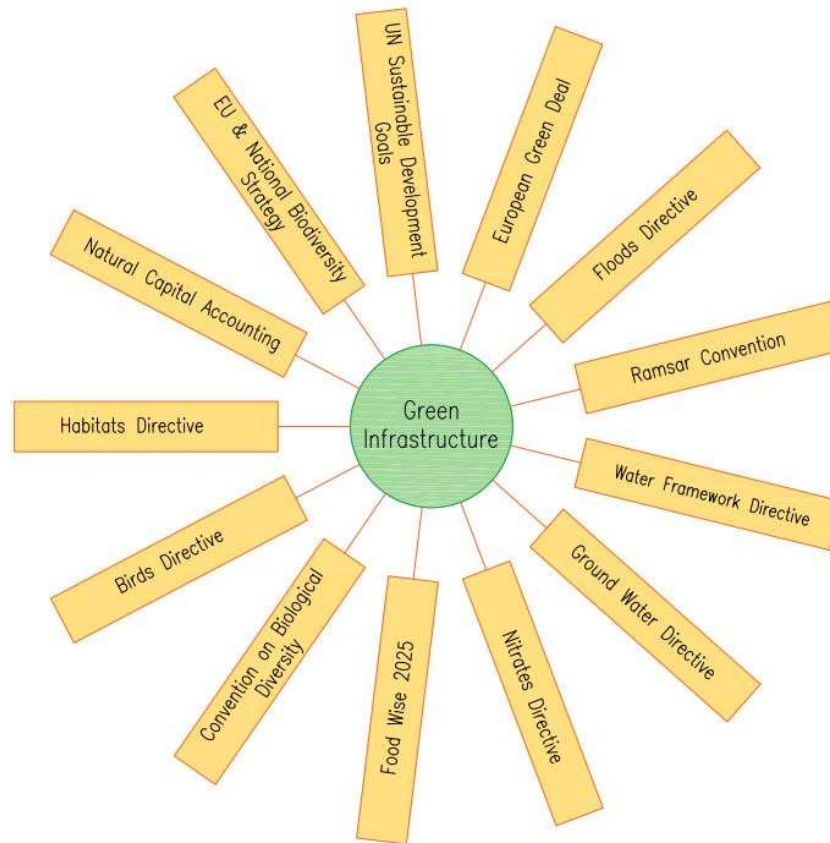
Figure 2: Range of legislation and policies of relevance to Green Infrastructure

A definition of Green Infrastructure from the European Commission is given below in Box 1. As can be seen it is much more than playing fields and manicured parks. It comprises the networks of trees, parks, green spaces, rivers, lakes and canals that lie within and between our towns and cities that help make urban and rural areas more robust in the face of climate change. Traditionally GI has taken second place to urban development. However, the ecosystem services and the wider benefits that GI provides are beginning to be recognised by policymakers, planners and wider society. Many of the benefits of GI are outlined in Figure 3. It creates a better work environment, reduces pollution and the provision of footpaths, cycleways and linkages helps to reduce traffic congestion and enables healthy low-cost recreation. Green infrastructure also helps local authorities meet their legal obligations under various Irish and EU legislation (e.g. the Birds and Habitats Directives) by making space for wildlife and by creating wildlife corridors between fragmented wildlife habitats. The biodiversity of existing open spaces and riparian ecosystems along waterways, which has been severely damaged by human activities, can be rehabilitated.

All future developments and refurbishment of existing developments must be viewed through the prism of the climate and biodiversity emergency. If properly designed, GI can help mitigate some of the worst effects of climate change. In general GI has the potential to contributes hugely to our overall well-being.

Box 1: What is Green Infrastructure?

"Green Infrastructure can be broadly defined as a strategically planned network of high quality natural and semi-natural areas with other environmental features, which is designed and managed to deliver a wide range of ecosystem services and protect biodiversity in both rural and urban settings.

More specifically GI, being a spatial structure providing benefits from nature to people, aims to enhance nature's ability to deliver multiple valuable ecosystem goods and services, such as clean air or water" (European Commission 2013 - Building a Green Infrastructure for Europe).
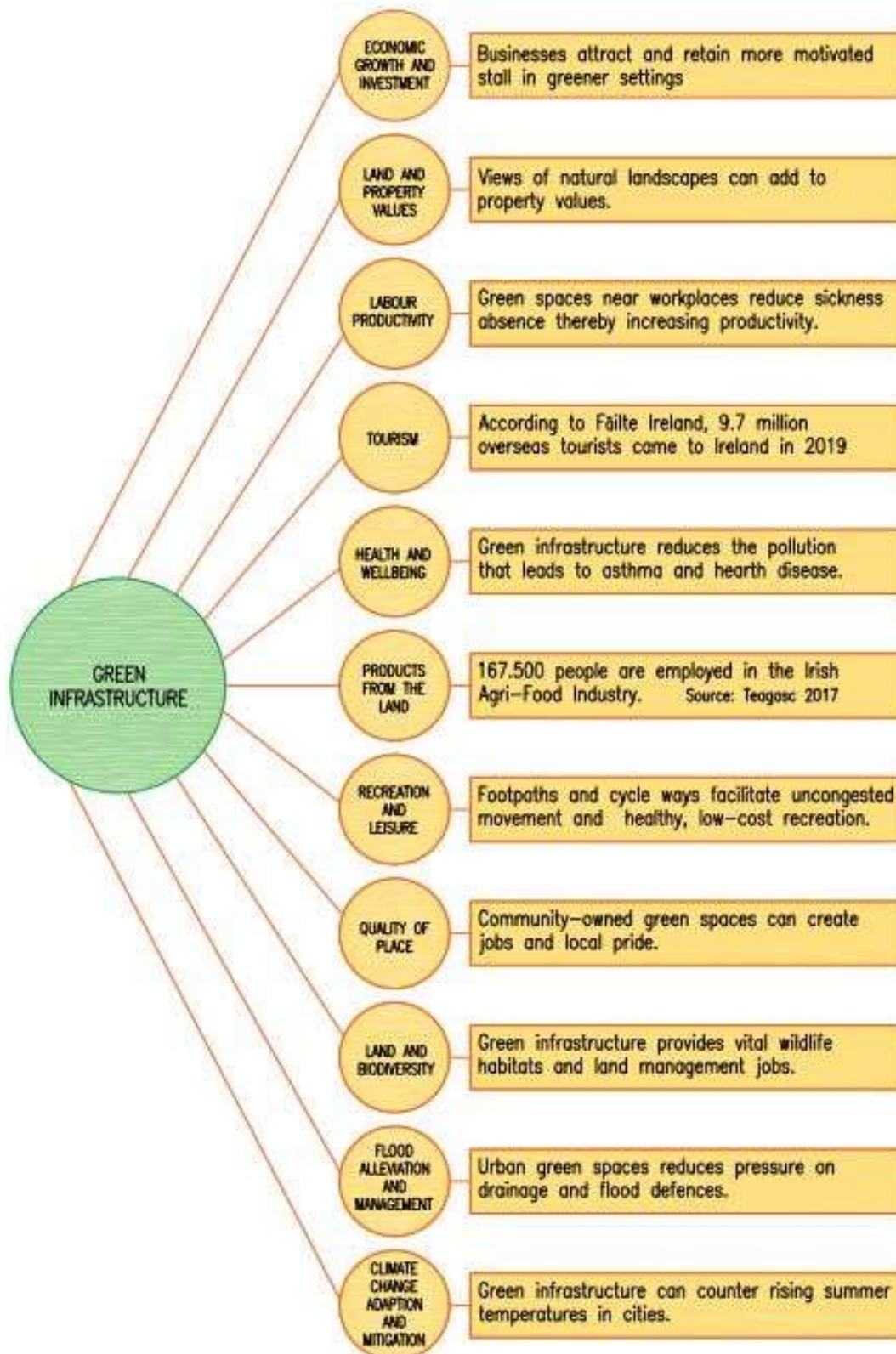
A.1 Types of Green Infrastructure

A.1.1 Wetlands

Wetlands are among the most threatened ecosystems. These habitats range from blanket bogs, fens and raised bogs to rivers, lakes, marshes, swamps, aquifers, springs and coastal waters. Also included in this category are constructed wetlands, ponds and swales. Wetlands deliver a wide range of ecosystem services such as water, climate and flood regulation, coastal protection, recreational opportunities, and tourism. According to the Millennium Ecosystem Assessment, (2005) the main causes of the loss and degradation of wetlands are "infrastructure development, land conversion, water withdrawal, eutrophication and pollution, overharvesting, overexploitation, and the introduction of invasive alien species". The continued loss and degradation of wetlands will reduce their ability to provide the ecosystem services that we depend on.

A.1.2 Rivers and Riparian Zones

Riparian zones represent the interface or ecotone between terrestrial and aquatic systems. These too are under significant pressure from anthropogenic activities. Apart from contributing to landscape aesthetics, supporting biodiversity, and providing wildlife corridors, riparian zones are also important in helping to intercept pollution before it enters surface waters. Other services provided by riparian vegetation are outlined in Riis et al. (2020). The deterioration and homogenisation of river habitats is a major issue and measures to protect streams and rivers from elevated fine sediment inputs should be built into green infrastructure planning. Pesticides and herbicides used by the local authority and homeowners are seriously damaging to aquatic biodiversity (Kelly-Quinn et al. 2020). GI should include measures to buffer rivers and streams from biocide runoff and should generally be at the core of all GI planning.

Figure 3: Some of the benefits of Green Infrastructure – modified from the Green Infrastructure Toolkit available at http://www.ginw.co.uk/resources/gi_toolkit.xls

A.1.3   **Trees, Woodlands and Hedgerows**

Woodlands, trees and hedgerows are important natural habitats that contribute hugely to the rural and urban landscapes. The wildlife habitat provided by hedgerows are rich and diverse, similar to the outer edge of a native woodlands. They also provide important wildlife corridors and linkages between fragmented habitats.

Native trees and shrubs, i.e. those that arrived in Ireland without human intervention, have been here for thousands of years. They support a wide variety of wildlife because the native vegetation and associated fauna have evolved together over the millennia. However, the decline in insect population is a growing and serious problem which threatens a "catastrophic collapse of nature's ecosystems" (Sánchez-Bayo and Wyckhuys 2019). As well as capturing carbon and airborne pollution, trees support a wide variety of beneficial insect populations. Table 3 below provides a list of trees that are most beneficial to insect populations.

Table 3: Number of insect species supported by some Irish native trees.

Tree species	Number of insects
Oak (*Quercus*)	284
Willow (*Salix*)	266
Birch (*Betula*)	229
Hawthorn (*Crataegus*)	149
Blackthorn (*Prunus*)	109
Alder (*Alnus*)	90
	73
Hazel (*Corylus*)	41
Ash (*Fraxinus*)	

From: Beckett and Beckett (1979)

A.1.4 **Grassland**

Improved agricultural grassland is generally of a monocultural nature and is of low biodiversity value. However, semi-natural grasslands which are not intensively managed such as old permanent pastures and the now rare hay meadows, which are rarely fertilised or grazed, have a wide variety of grasses and flowering plant species. This type of wildlife rich habitat is now largely confined to field and roadside verges, railway embankments, cemeteries and churchyards (Fossitt 2000).

A.1.5 **Green Roofs and Green Walls**

According to Berardi et al. (2014) green roofs, if properly designed, can help replace lost green spaces and habitats in modern cities. The potential for green roofs and green walls to become 3D urban wildlife corridors is considered by Mayrand and Clergeau (2018). However, the authors recognise the limits of these systems due their scale and patchy distribution and to the quality of the habitats that they provide. The authors go on to say that while green roofs and green walls offer habitats to species that adapt to urban areas, they will generally not be large enough to cater for species that avoid urban areas.

Green roofs and green walls have other contributions to make to the urban environment. According to Hoeben and Posch (2021) they reduce stormwater runoff and filter it before it enters ground and surface waterbodies. The authors go on to report that green roofs and walls help to improve air quality and regulate urban temperatures.

B.0 GREEN INFRASTRUCTURE TOOLS

B.1 **Green Space Factor and Green Points System**

The city of Malmö in Sweden has developed a GI planning tool that has been successfully used in new developments. Kruuse (2011) outlines the processes involved and the results achieved when using the Green Space Factor and Green Points System, the two functions of the GI planning tool.

B.1.1 **The Green Space Factor**

The Green Space Factor (Malmo 2001), also known as the Biotope Area Factor (Berlin 1994) and the Green Factor (Seattle 2007), is a method of calculating green space requirements for new development. It is based on the principle that small scale, incremental and decentralised GI can have a cumulative effect to improve the ecology of a development area. Impacts of a development are mitigated by putting measures in place to enhance biodiversity and manage rainwater.

The Green Space Factor is calculated as:

$$\text{GSF} = \frac{(\text{area A x factor A}) + (\text{area B x factor B}) + (\text{area C x factor C}) + \text{etc.})}{\text{total courtyard area}}$$

The method involves assigning factors to different surface types that vary from 1 to 0 depending on the surface type (Table 4). For instance, a factor of 1 for vegetation in contact with groundwater to 0 for sealed surfaces. High values are assigned to elements such as green roofs, large trees and green walls. Factors assigned to each surface types are multiplied by the area of each surface type. The multiples are added together, and the total divided by the total area of the different surface types to give the overall Green Space Factor.

B.1.2 **The Green Points System**

While the Green Space Factor differentiates between different types of GI surface cover, it is not sufficient to ensure biodiversity features are included in a development. For example, the Green Space Factor does not differentiate between a species poor, mown lawn and a species rich wildflower meadow or a green roof that is devoid of wildlife with one that is rich in biodiversity. The introduction of the Green Points System (Table 5) provides an additional scoring mechanism that delivers a more biodiverse green infrastructure. In the Green Points System outlined in Kruuse (2011) there are 35 green point options ranging from 1 to 35. Developers are required to include at least 10 of the 35 options in their landscape designs proposal before calculating the Green Space Factor.

B.2 **The Green Infrastructure Toolkit**

The Green Infrastructure toolkit which was adapted in England from Malmö's Green Space Factor and Green Points System is presented in a series of Excel spreadsheets to help developers determine the Green Infrastructure Score of the whole development site. The existing BREEAM 'Very Good' term which is understood by developers, is used to describe the Green Infrastructure Score. GI requirements for a site with existing built structures differ from that of a green field site. The Green Infrastructure Score of a site with existing structures is calculated prior to the commencement of the development and compared with the calculated GI Score of the proposed development. To achieve a 'Very Good' score the proposal for the new development on a brown field site must be at least 0.2 higher than the score for the existing structures on the site. A development for a green field site on the other hand must score a minimum 0.6 to reach 'Very Good'. The Toolkit has 71 suggested GI 'interventions' that developers can use to increase their GI score. The interventions which, relate to tree cover, green roofs and walls, general vegetation, water, connectivity and any other intervention that the developer deems appropriate, are grouped, in the Excel spread sheet, according to economic benefits outlined in Figure 3 that GI provides. Developers can use the Toolkit at an early stage to inform the design of the site while taking account of existing GI plans or strategies for the area.

Table 4: Green Space Factor for each surface type.

Surface type	Factor

Vegetation on ground	1.0
Vegetation on trellis or facade	0.7
Green roofs	0.6
Vegetation on beams, soil depth between 200 mm and 800 mm	0.7
Vegetation on beams, soil depth more than 800 mm	0.9
Water surfaces	1.0
Collection and retention of stormwater	0.2
Draining of sealed surfaces to surrounding vegetation	0.2
Sealed areas	0.0
Paved areas with joints	0.2
Areas covered with gravel or sand	0.4
Tree, stem girth 16-20 centimetres (20 square metres for each tree)	20.0
Tree, stem girth 20-30 centimetres (15 square metres for each tree)	15.0
Tree, stem girth more than 30 centimetres (10 square metres for each tree)	10.0
Solitary bush higher than 3 metres (2 square metres for each bush)	2.0

From Kruuse (2011)

Table 5:   Green Points System

Points	Green point options
1	A bird box for every apartment
2	A biotope for specified insects in the courtyard (pond skaters and other aquatic insects in the pond)
3	Bat boxes in the courtyard
4	No surfaces in the courtyard are sealed, and all surfaces are permeable to water
5	All non-paved surfaces within the courtyard have sufficient soil depth and quality for growing vegetables
6	The courtyard includes a rustic garden with different sections
7	All walls, where possible, are covered with climbing plants
8	There is 1 square metre of pond area for every 5 square metres of hard-surface area in the courtyard
9	The vegetation in the courtyard is selected to be nectar rich and provide a variety of food for butterflies (a so-called 'butterfly restaurant')

10	No more than five trees or shrubs of the same species
11	The biotopes within the courtyard are all designed to be moist
12	The biotopes within the courtyard are all designed to be dry
13	The biotopes within the courtyard are all designed to be semi-natural
14	All stormwater flows for at least 10 metres on the surface of the ground before it is diverted into pipes
15	The courtyard is green, but there are no mown lawns
16	All rainwater from buildings and hard surfaces in the courtyard is collected and used for irrigation
17	All plants have some household use
18	There are frog habitats within the courtyard as well as space for frogs to hibernate
19	In the courtyard, there is at least 5 square metres of conservatory or greenhouse for each apartment
20	There is food for birds throughout the year within the courtyard
21	There are at least two different old-crop varieties of fruits and berries for every 100 square metres of courtyard
22	The facades of the buildings have bird nesting facilities
23	The whole courtyard is used for the cultivation of vegetables, fruit and berries
24	The developers liaise with ecological experts
25	Greywater is treated in the courtyard and re-used
26	All biodegradable household and garden waste is composted
27	Only recycled construction materials are used in the courtyard
28	Each apartment has at least 2 square metres of built-in growing plots or flower boxes on the balcony
29	At least half the courtyard area consists of water
30	The courtyard has a certain colour (and texture) as the theme
31	All the trees and bushes in the courtyard are native.
32	The courtyard has trimmed and shaped plants as its theme
33	A section of the courtyard is left for natural succession (that is, to naturally grow and regenerate)
34	There are at least 50 flowering native wild herbs within the courtyard
35	All the buildings have green roofs

Adapted from Kruuse (2011)

C.0 PROMOTING GREEN INFRASTRUCTURE IN PLANNING AND DEVELOPMENT

There is clearly a need to recognise and mitigate the dramatic loss of biodiversity, environmental degradation and the growing issues relating to climate change. Existing green infrastructure and properly designed new GI have a roll to play in addressing these growing concerns. Planning and promoting the use of GI can be at a number of levels as outlined section 6.1.

C.1 County Development Plans

As with all planning and development, incorporation of GI needs to be strategic to maximise the benefits that it can provide and be cognisant of the trade-offs that may need to be considered. Having identified the pressures or key issues that GI can address, County Development Plans should develop and introduce similar evidence-based methods as outlined by Kruuse (2011) to quantify the amount of green infrastructure that developers need to include in their proposals in order to get through the planning process. Similar approaches should be developed for all local authority projects that will potentially impact existing GI and for the creation of new GI. These should align with other local authority strategies and investment plans and should state who will provide the infrastructure and when it will be provided. This will help ensure that the many benefits of GI are not just confined to the leafy suburbs.

Importantly, a strategy is required to support and enable knowledge conversion and communication to raise awareness among all sectors of the population, from policy makers to citizens, and to inform the practical application of GI in development projects. This could include the development of demonstration sites to showcase nature-based solutions with existing land uses.

C.1.1 Ecological Connectivity

It is important to address habitat fragmentation through the use of GI. Road verges, greenways and riparian zones are linear features in the landscape that provide important wildlife habitats and corridors that link fragmented habitats. The wildlife potential of these linkages should be maximised by planting trees, shrubs and flowers for pollinators that are native to the area.

In terms of tree planting, development plans should include quantifiable annual targets and the design should be of a tiered vegetation structure to include a) a distinct canopy of native trees, b) native shrub layer and c) native ground layer.

Existing sensitive habitats such as riparian woodland, mixed broadleaf woodland and riparian zones require protection when designing access roads, greenways, walkways and areas for amenity as they contain wildlife habitats and many of them act as buffers to waterbodies.

Development plans should also include agreed joint action plans to protect wildlife habitats that straddle local authority boundaries.

C.1.2 Wetlands and River Basin Management

Development plans should set out how they will contribute to river basin management. This is extremely important if the decline in river water quality is to be reversed. Plans should be put in place to reinstate natural river features and to remove unnatural features such as weirs. Where possible culverted streams should be opened to allow fish to move freely, and new culverts and bridges should be designed to avoid the creation of barriers to fish (Kelly-Quinn et al. 2022). Proposed nearby developments should be appropriately assessed to guarantee protection of riparian zones.

An action plan to control and eliminate invasive alien species especially in waterbodies and riparian zones is required to comply with the Birds and Habitats Regulations. An action plan is also required to ensure the conservation of remaining wetlands, identify sites that warrant special protection and to provide data that enables their protection under the Ramsar Convention on Wetlands

C.1.3   <u>**Public Lighting**</u>
Apart from the vast amounts of energy they use, with the inevitable contribution to carbon emissions, there are environmental and health implication associated with public street lighting. According to Ngarambe, et al. (2018) street lighting causes light pollution, which has consequences for animals and plants. The following suggestions from the EU COST Action Loss of Night Network (LoNNe)10 to combat light pollution will also improve the energy-efficiency and the environmental and human health issues associated with public street lighting.

1. Every light needs to be justifiable
2. Limit the use of light to when it is needed
3. Direct the light to where it is needed
4. Reduce the light intensity to the minimum needed
5. Use light spectra adapted to the environment
6. When using white light, use sources with a "warm" colour temperature (less than 3000K)

D.0   CONCLUSION & KEY ACTIONS (Biodiversity & Green Infrastructure)

We urgently need to address the causes of climate change and the catastrophic decline of biodiversity and the associated widespread environmental degradation. GI has a definite role to play in mitigating some of the damage caused by urban or rural developments. It is up to local authorities to ensure that developers protect existing GI and provide adequate GI that creates a wide range wildlife habitats and biodiverse features. The following is a summary of key actions that should be included in development plans:

1. Enhance the use of GI to mitigate the impact that climate change will have on ecosystem services and consequently on society.
2. Take definite steps to mitigate the impact that developments have on biodiversity by developing GI tools similar to those used elsewhere in Europe and the U.S.
3. Improve enforcement of planning conditions to ensure GI elements are properly included in new developments.
4. Carry out frequent random inspections of wastewater treatment plants to confirm that they are installed correctly and not causing pollution.
5. Develop a communication strategy to raise public awareness of the importance of GI and to inform the practical application of GI in development projects.
6. Improve the biodiversity of existing GI as follows:

   o Protect existing wild places especially wetlands and riparian zones.
   o Eliminating the use of chemicals and herbicides in the vicinity of watercourses and minimise their use elsewhere.
   o Construct new ponds and wetlands that contain aquatic and fringing vegetation native to the area.
   o Create wildflower meadows using wildflower seeds that are native to the locality.
   o Set ambitious targets for planting native trees and shrubs and allow scrub vegetation to develop in places.
   o Draw up an action plan to control and eliminate invasive alien species.
   o Increase biodiversity of roadside verges by introducing a maintenance regime that involves the following;

Mow roadside verges just twice-yearly using mowers that collect the grass (over time, this will reduce the fertility of the soil and allow wildflowers to compete with grass). First cut should be early in the year (not later than February) with the second cut in September / October.

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[10] http://www.cost-lonne.eu/recommendations/

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G   Built & Cultural Heritage

The Conservation Policy of the RIAI is that:

1. The understanding of the cultural significance of architectural heritage is central to its conservation.
2. The continued use of our built heritage offers the best way for ensuring its physical and cultural survival.
3. The importance of research and the sharing of knowledge is crucial to the development of conservation.
4. The skill set of the architect in conservation should include collaborative design, practice and management.
5. The successful resolution of the complexities involved in the conservation of our built heritage requires architectural training and expertise, and;
6. The architect should be the leader in conserving our built heritage.

Within this framework the RIAI seeks to further the protection, conservation, suitable adaptation, restoration and rehabilitation of historic buildings, groups of buildings and sites which, by virtue of their particular character and special interest, form part of our built heritage.

The RIAI seeks to achieve the above by:

1. Asserting its commitment to conserving the built heritage.

2. Advancing informed conservation as an integral part of the practice of architecture.

3. Expanding the role of education in developing an awareness of the architectural heritage.

4. Engaging with the continual professional development of architects to integrate the knowledge base of conservation principles with the competency of the Architect on the Register.

5. Strengthening its links with appropriate national and international bodies involved in conservation.

6. Supporting public awareness of the conservation process.

7. Encouraging new solutions to design challenges and the integration of high quality interventions in historic buildings and places.

8. Advocating for innovative regulatory policies which enable sustainable adaptation for re-use of historic buildings, without compromising their heritage significance.

9. Promoting the appointment of architects with conservation expertise within regulatory bodies and public / private sector agencies.

10. Fostering traditional skills and craft trades involved in conservation.

11. Emphasising the need for financial incentives for conservation purposes.

Culture

The Development Plan should support greater inclusivity as part of the cultural experience and the adaptation to existing facilities to address existing shortcomings. It should support initiatives and investments in arts and cultural spaces that aim to promote increased cultural engagement for minority groups, people with disabilities, young people, socially excluded, members of the Travelling community and LGBTQ+ community members.

It should also encourage disabled people to take part fully in the local culture as consumers, creators, artists and workers by supporting a high standard of accessibility in new and existing cultural assets. The application of these objectives should be referenced to the UNCRPD.

Concluded: RIAI 20.12.2022

RIAI